### DoN IM/IT Conference

"Unlock the Power of Information"

# Cruisin' Down the Information Highway

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# Welcome to the Second Era of the Information Age!

"From Pioneering to Proliferation"

# February, 1946 - 50 Years Ago The Arrival of ENIAC

- "Electronic Numerical Integrator And Calculator"
- → Generally regarded as the First Digital Computer
- ◆ Created by Eckert and Mauchly at the Moore School of Electrical Engineering, Univ. of Pennsylvania under contract to the US War Department
- → Calculations performed by 18,000 vacuum tubes
- → Decimal based and Non-programmable
- Application Ballistic trajectory tables
- → Useful life 9 years

## The Reaction to ENIAC

By the mathematicians of the day...



## The Reaction to ENIAC

By the mathematicians of the day...

"We do not see the necessity for such a device. We already have the tools and capabilities to perform all necessary mathematical calculations"

### The Premise and the Promise

That the Second Era of Information Technology will position IT and resulting service delivery infrastructures as the key enabler to organizational transformation and the achievement of high performance organizations

## Three Themes

+ Leadership



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+ Leadership

+ Architecture



## Three Themes

+ Leadership

+ Architecture

+ Perseverance

Question:
What is the greatest obstacle to effective IT/IM deployment?
(i.e., the ENEMY)



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Answer:
Organizational Silos!!!



#### The PROACT<sup>TM</sup> Leadership Framework

Four Concurrent Change Management Levels

STRATEGIC ORIENTATION

Level 1
Business/Program Renewal

Level 2
Process Reengineering

INFRASTRUCTURE

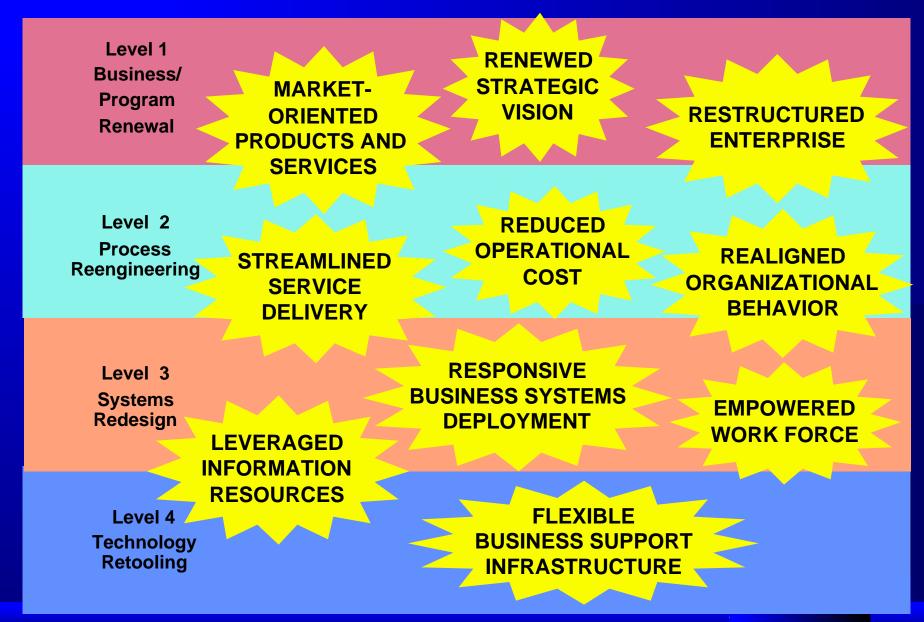
DEPLOYMENT

Level 3
Systems Redesign

Level 4
Technology Retooling

Source: A.T. Caston Consulting Inc

#### DESIRED BUSINESS TRANSFORMATION OUTCOMES

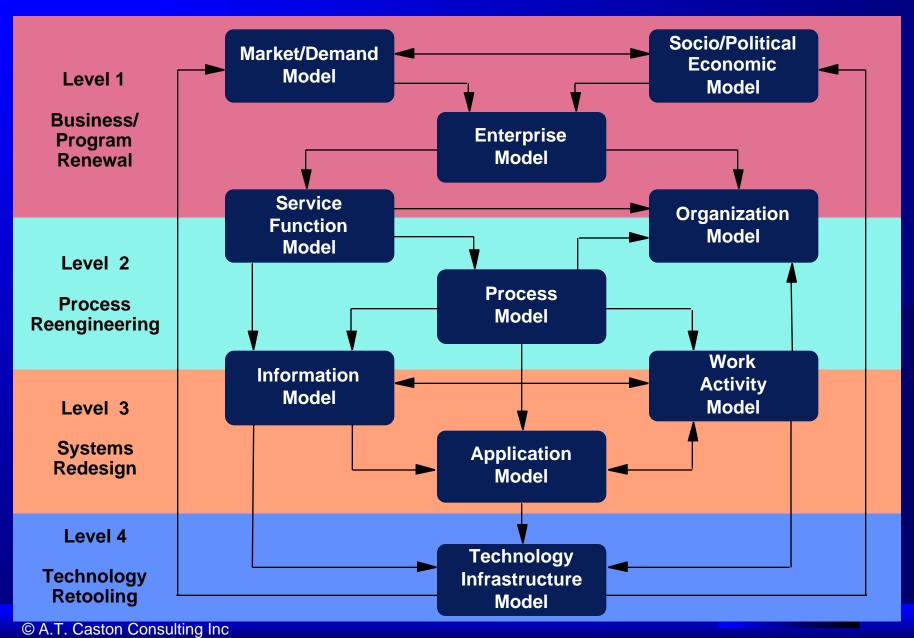


### The Role of Architecture

- → IT-enabled organizational transformation is inherently complex
- An architectural framework is necessary to manage this complexity
- → Architecture involves identifying and classifying all components and their inter-relationships within a given planning context
- → These architectural models provide the basis for identifying common components and relationships
- → We have identified 10 distinct architectural models involved in business transformation

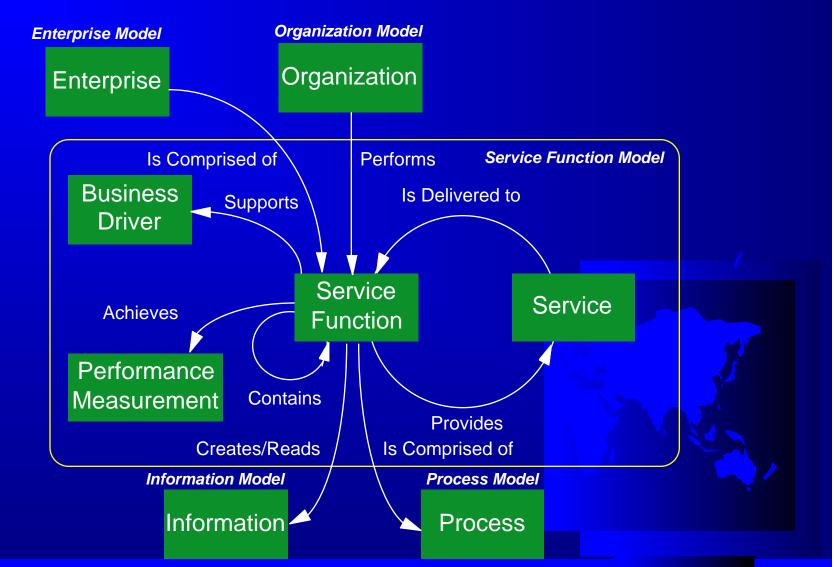
#### The PROACT Framework

Architectural Models Showing Contextual Relationships...

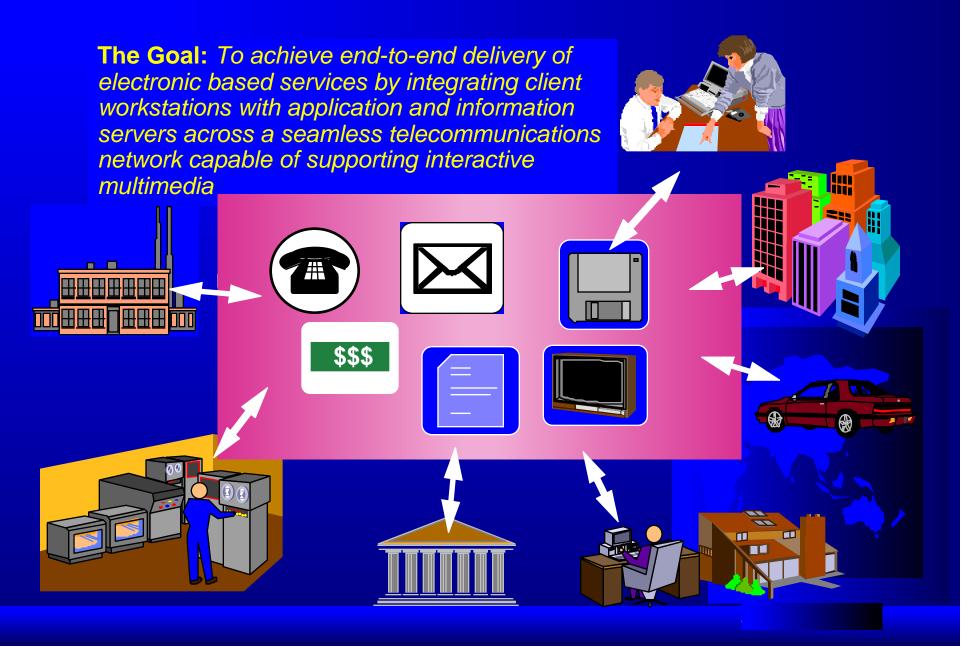


### Service Function Model

Key Components and Relationships



#### IT Infrastructure Services



#### **Information Technology Infrastructure Services**

Layer 5: Electronic Delivery of Customer Services

Layer 4:
Shared Applications
and
Information Services

Layer 3: Integrated Network Computing Environment

Layer 2: Value-added Network Services

Layer 1: Common Carrier Transport Services



#### **Information Technology Infrastructure Services**

Driven by Business Renewal and Process Reengineering

Clients and Users Layer 5: Electronic Delivery of Customer Services

Layer 4:
Shared Applications
and
Information Services

Layer 3: Integrated Network Computing Environment

Layer 2: Value-added Network Services

Layer 1: Common Carrier Transport Services

Governance Structure for Architecture Management and Infrastructure Services Management Infrastructure Service Suppliers

# Today's IT Leadership Challenges...

- → Establishing cross enterprise leadership and direction for the "Paradigm Shift"
- Connecting to business renewal and process reengineering initiatives
- → Introducing architecture planning and management as the foundation for integrated planning
- Building capabilities for model-based development, object orientation, and rapid application development

# Today's IT Leadership Challenges...

- → Rationalizing the architecture and supporting standards for the enabling IT infrastructure -The "IT Blueprint"
- → Setting the pace for migrating to this infrastructure while leveraging existing legacy systems
- → Reorienting the IT Function around an infrastructure services business model
- → Engaging external infrastructure service providers in this more outwardly focused view of services

# Making the Transition

- → Firmly establish the vision of the IT Infrastructure -If not strategic it won't happen!
- → Implement an enterprise architecture management methodology and tool which links business and systems modeling - The essential ingredient for integration!
- → Establish a support role with reengineering teams and develop the business needs and opportunities for a supporting infrastructure - Not a technical sell!

# Making the Transition

- ◆ Choose an open network computing technology framework & establish a standards-based architecture for the infrastructure - Avoid the religious wars!
- Consider the trend towards networked interactive multimedia in establishing requirements and solutions
   - It's MUIs, not GUIs
- → Build capability and credibility with advanced development environments This can provide the most immediate future cost savings
- → Migrate to the infrastructure in the most expeditious manner - the benefits are staggering!

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